Alaska Region FY 2012 Annual Work Plan

1. Introduction

1.1. Regional vision, goals, and objectives.

Vision: The inventory and monitoring (I&M) initiative for the Alaska National Wildlife Refuge System will expand the existing refuge I&M program to identify and evaluate the status and trends of wildlife, fish, plant and water resources across the Alaska region on Refuge lands, and changes to those resources due to climate change and other internal and external stressors. Inventory and monitoring projects will enhance our knowledge of natural processes and ecosystem assemblages, and inform best practices to minimize the disruption to "natural, scenic, historical, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values" (ANILCA § 101(a)), i.e., the resources to be conserved on Alaska Refuges as defined by the Alaska National Interest Lands Conservation Act of 1980.

Goal 1: Develop a regional I&M Plan to coordinate legacy, current, and future inventory and monitoring activities across Refuges, with Landscape Conservation Cooperatives (LCCs), and with other partners to promote a better understanding of natural systems and the effects of climate change and other stressors on those systems.
- Objective 1.1: Ensure that each Refuge is aware of I&M activities throughout the Alaska NWRS.
- Objective 1.2: Identify common natural resource issues needing long-term I&M among Refuges and partners and develop common protocols including sampling schemes, field methods, data collection and management, and analyses.
- Objective 1.3: Identify common natural resource information needs among Refuges and partners and develop new plans to meet these needs.

Goal 2: Partner with LCCs and the Alaska Climate Science Center (CSC) in developing our regional I&M plan so that we all promote an understanding of natural systems and resources in the context of landscapes and climate change.
- Objective 2.1: Coordinate with LCC and CSC leadership through meetings and informal communication to identify common goals and objectives of Refuges and partners.

Goal 3: Provide support, a regional perspective, and regional standards to ensure the best research practices are applied to all Refuge biotic and abiotic investigations.
- Objective 3.1: Provide advice and guidance on development of regionally coordinated I&M activities.
- Objective 3.2: Provide peer review, data management tools, and statistical support.
- Objective 3.3: Promote information networking and sharing of expertise among Refuge staff, especially those dedicated to I&M.
- Objective 3.4: Facilitate use of expertise at Universities and other research facilities.

Goal 4: Work with Refuge managers and biologists to ensure that I&M activities respond to and inform management questions.
- Objective 4.1: Engage Refuge managers early in the process of determining I&M objectives and tasks through participation on teams, meetings, and informal information sharing.
- Objective 4.2: Engage Refuge managers and biologists in developing regionally consistent standards and guidance.

1.2. The Alaska Region Refuge I&M organization.

The Region 7 I&M branch, which currently includes an I&M Coordinator, 2 Data Managers, 2 Biometricians, and a Regional Botanist, is within the Realty and Natural Resource Division (RNR). This Division also includes a Regional Refuge Ecologist and a Water Resources Branch. The I&M Branch Chief, Water Resources Branch Chief, and Regional Refuge Ecologist will coordinate management of biotic and abiotic investigations with Refuge supervisory/lead biologists. Three I&M field positions stationed at

Innoko, Tetlin, and Arctic will share their expertise among other Refuges to ensure coordination of I&M activities on Refuges.

1.3. Integration with the existing Region 7 NWRS natural resource programs.

Alaska Refuges have conducted refuge-level I&M activities since they were created and these activities are an integral part of biological investigations on Alaska Refuges. Knowing the composition and trends of biotic and abiotic resources helps inform focused research investigations, while the latter can inform critical metrics that are key resources and system drivers. The I&M Coordinator and Regional Refuge Ecologist will work in concert to expand the existing refuge-based I&M program into a regionally cohesive program that provides ecological information at the regional and national as well as refuge scales.

The I&M program will facilitate communication and information sharing among Refuges, assist with development of Refuge I&M Plans, identify similar investigations and overlapping information needs, identify regional information needs and develop strategies to address them, and develop peer-reviewed I&M protocols.

In addition to existing refuge I&M activities, the Water Resources Branch in the RO conducts water inventories on Alaska Refuges in order to apply for in-stream flow water rights from the State of Alaska. To date, the WRB has collected data and applied for water rights on over 200 water bodies. The Refuge program in the RO has also supported vegetation studies and inventories across refuges.

1.4. Coordination with Alaska LCCs and other FWS programs.

Alaska Refuges currently work closely and collaboratively with Migratory Birds, Marine Mammals, and other FWS programs to complete national and regional monitoring surveys. We will work with these programs to develop additional cooperative projects as needed, and to provide baseline data that will inform status and trends of FWS trust resources on refuges.

Of the five LCCs in Alaska, four are coordinated through FWS in Alaska, and the 5th (North Pacific) is coordinated through Region 1. The Arctic and Western Alaska LCCs were staffed prior to FY11 and the LCC Coordinators and the Science Applications ARD are located in the Alaska Regional Office in Anchorage, facilitating communication with I&M staff. The Aleutian and Bering Sea Islands LCC recently hired a Coordinator and the Northwest Interior Forest LCC has an interim Science Coordinator located in Fairbanks. We envision these programs growing together, with Refuges informing LCC models and assisting with landscape level information needs, and LCCs providing information on the larger landscape context. In addition, we are coordinating with the Alaska CSC as that program develops.

2. Staffing

Regional Office -- NWRS

Diane Granfors – Regional I&M Coordinator and I&M Branch Chief
Hilmar Maier – Refuge Data Manager, stationed at Fairbanks. Will likely take on duties to facilitate regional GIS coordination.
Michael Cunanan - Refuge Data Manager, stationed at Anchorage
Steve Talbot – Regional Refuge Botanist (moved to I&M funding FY12)
Invasive Species Coordinator (refuges, plants) – identified regional need; tentative plans to hire pending funding
Hydrologists (water quality and long-term monitoring) – identified regional need; tentative plans to hire pending funding
Nathan Roberts – Regional Refuge Biometrician, Anchorage (moved to I&M funding FY12)
Anna-Marie Benson – Biometrician, Fairbanks (moved to I&M funding FY12)

Field Staff
Jerry Hill – Refuge Biologist, I&M specialist, Innoko NWR
Greta Burkart – Refuge Biologist, I&M specialist, Aquatic Ecologist, Arctic NWR
vacant – Refuge Biologist, I&M specialist, Tetlin NWR

Additional key are key contacts within RNR :
Danielle Jerry – Division Chief of Realty and Natural Resources
John W. Martin – Regional Refuge Ecologist
John Trawicki – Branch Chief of Water Resources
Cathy Flanagan – Hydrologist, WRIA contact and coordinator

3. Planned Activities and Anticipated Products

Table 1. FY 2012, Summary of National and Regional I&M Activities by Blueprint Objective, R7

Blueprint Objectives and Tasks	Project or Theme	Task
2a	WRIAs	WRIAs will be completed for Arctic, Tetlin, and Kanuti NWRs by the WRB and the Arctic NWR aquatic ecologist. Data will be entered into the national database.
2a	Water Quality and Quantity monitoring	Monitoring will continue on Togiak, Tetlin and Kanuti NWR where gages have been established by the WRB.
2a	Water Quality and Quantity I&M plan	The regional water team will develop objectives and alternatives for inventory and monitoring water on refuges.
1d	Biotic Inventory planning and pilot implementation	The regional inventory team will develop a hierarchical strategy for implementing comprehensive biotic inventories on Alaska Refuges. A full protocol for a pilot project in 2012 will be developed pending available funding.
4b	Phenology Monitoring on Alaska Refuges	The regional phenology team will develop a strategic plan for implementing monitoring on refuges. We will coordinate with the NRPC and NPN on developing objectives, protocols, and data management for Alaska Refuges.
4b	Phenology Monitoring	The I&M coordinator will serve on the national team to develop a NWRS node on the NPN website and develop a strategy for phenological monitoring on refuges.
1d	Vegetation Inventories on Unimak Island	The regional botanist will continue surveys of flora and vegetation on Alaska Maritime NWR in support of controversial intensive management issues.
1d	Vegetation Inventories on Kasatochi Island	The regional refuge botanist will continue monitoring the re-emergence of plants on Kasatochi island – site of a large volcano eruption in 1998. With completion of this 4th vegetation survey, the island will become a permanent monitoring site managed by USGS.
1d General task c	Comprehensive vegetation classification and land cover map for Alaska	A team comprised of I&M, Refuge, LCC and other stakeholders met in Sacramento in October 2011 for an SDM workshop on this topic. We will continue to work on this issue engaging additional stakeholders and developing a plan to move forward on a classification scheme relevant to land managers and obtainable from remotely sensed data.

1d, 5a, 6a General task c	Coastal Processes pilot project Western Alaska LCC	We will coordinate with the WALCC to provide support for monitoring components of this pilot project addressing the effects of climate change on storm surges, sea level rise, hydrologic effects, etc. and implications to biotic resources.
1c, DM 1&3	ServCat (nee Geospatially Referenced Information System (GRAS))	Staff at Tetlin NWR will participate in the national pilot effort for this database, assisted by data manager Michael Cunanan.
General task a, DM 1	PRIMR	Data managers will work with refuge staff to populate the PRIMR database for all R7 refuges by April 2012.
General task a, DM 1, 7	PRIMR purpose and data definition	The regional coordinator and data managers will continue to serve on the PRIMR team identifying the purpose of PRIMR at multiple scales, a handbook and data dictionary for users, and development of a tool for prioritizing surveys at the refuge level.
DM 2	Water Data Management	Data manager Michael Cunanan will continue working with the WRB and refuges on managing water quality and quantity data that is currently pressing the limits of refuge storage capacity.
DM 5	Weather database	The WRB expressed a need for automated downloading of weather data in FY11. Since then, other refuges and LCCs have expressed a similar need. The data managers will work on developing this capacity for those interested.
DM 5	Refuge Data Management	The data managers will continue consulting with refuges formally by conducting workshops and webinars and informally through consultancies. Michael will visit Kodiak and Alaska Maritime to assist with developing specific databases.
DM 5	Telemetry database	Many refuges collect telemetry data on caribou, moose, bear and other animals but lack a standardized format for such data. The NPS in Alaska has developed a database that includes data standards and facilitates population of the database for certain types of transmitters. We will work with NPS to develop similar tools for refuges.
DM 7	Communication, PRIMR, data integration	Data managers are developing a process to export PRIMR data in a format compatible with the Alaska data Integration working group (ADIwg) standard to facilitate communication of refuge projects with partners.
DM 7	Refuge Geospatial Advisory Committee (GAC)	Data manager Hilmar Maier will continue to serve on the GAC.
	GIS needs assessment	Data manager Hilmar Maier will develop a strategy to determine what GIS data layers are needed by which refuges, and to provide training for those refuges lacking basic GIS skills.
	Develop moose survey protocol	Biometrician Nathan Roberts will work with Refuge staff and ADF&G biometricians to develop a standardized moose protocol for refuges.

Table 2. Summary of National and Regional I&M Planned Symposia, Training, and Workshops

Blueprint Objectives and Tasks	Symposium, Program Review, Training, or Workshop	Staff
	COMMUNICATION - TRAINING	
	Designing and implementing a biological monitoring program	Granfors
	I&M Presentation – R7 Project Leader's Meeting	Granfors, Maier, Cunanan

Blueprint Objectives and Tasks	Symposium, Program Review, Training, or Workshop	Staff
	PRIMR factsheet and webinar for R7 Refuges	Granfors, Maier, Cunanan
	R7 I&M biologists team meetings	Granfors, Maier, Cunanan

4. Budget Narrative and Budget

Currently we are on a continuing resolution. R7 FY12 funds support 9 staff, 3 of which were existing positions converted to I&M funding in FY12. One FTE hired in FY11 actually started in FY12. No new permanent FTEs are anticipated for FY12. Funds remaining after salaries will be available to support current staff and new projects, pending regional refuge needs.